AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

Claim 1 (previously presented): A connector chip for electrically connecting a conductive contact pin thereto, comprising:

a nonconducting top layer;

a nonconducting bottom layer;

a conductive sheet situated between the top layer and the bottom layer; and

a passageway extending at least partially through the chip, the passageway including resiliently-biasing means for holding the pin in contact with the sheet and for restraining the pin from translating with respect to the chip.

Claim 2 (previously presented): The electrical connector chip as defined in Claim 1 wherein:

the resiliently-biasing holding means includes resiliently-biasing means for applying a frictional force against the pin, whereby a withdrawal of the pin from the passageway is resisted.

Claim 3 (previously presented): The electrical connector chip as defined in Claim 2 wherein:

the pin has a lateral side; and

the resiliently-biasing holding means includes resiliently-biasing means for applying a normal force against the side, whereby the frictional force is generated when a force is applied to the pin in a direction that would, in the absence of the frictional force, withdraw the pin from the passageway.

Claim 4 (previously presented): The electrical connector chip as defined in Claim 2 wherein:

the passageway includes an opening through the sheet; and

the opening has a breadth that increases when the pin is inserted therethrough.

Claim 5 (previously presented): The electrical connector chip as defined in Claim 4 wherein:

the passageway is further comprised of a top hole through the top layer, and a bottom hole through the bottom layer; and the top hole, the bottom hole and the opening are aligned.

Claim 6 (previously presented): The electrical connector chip as defined in Claim 5 wherein:

the opening, when unstressed, has an unstressed minimum breadth;

the pin is cylindrical and has a diameter;

the unstressed minimum breadth is smaller than the diameter of the pin;

the opening has a periphery; and

the sheet is comprised of a resiliently-biasing flexible material so that the periphery can cantileverly deflect into the bottom hole when the pin is inserted into the opening.

Claim 7 (previously presented): The electrical connector chip as defined in Claim 5 wherein the sheet is composed of a resiliently-biasing flexible material so that the breadth varies responsive to the contact pin being inserted therethrough.

Claim 8 (previously presented): The electrical connector chip as defined in Claim 7 wherein:

the breadth varies between an unstressed minimum breath and a stressed breath, with the stressed breath being greater than the unstressed minimum breath;

the contact pin has a diameter greater that the unstressed minimum breadth; and

the breadth increases to the stressed breadth in response to the contact pin being inserted into the opening.

Claim 9 (previously presented): The electrical connector chip as defined in Claim 8 wherein the opening is formed by a plurality of resiliently-biasing fingers extending centripetally from a section of the sheet that circumscribes the opening.

Claim 10 (previously presented): The electrical connector chip as defined in Claim 8 wherein:

the top hole has a top hole diameter and the bottom hole has a bottom hole diameter; and

the top hole diameter is smaller that the bottom hole diameter.

Claim 11 (previously presented): The electrical connector chip as defined in Claim 1 comprising means for preventing rotation of the pin with respect to the chip.

Claim 12 (previously presented): The electrical connector chip as defined in Claim 1 further comprising:

a plurality of passageways through the chip; and

a harness including a plurality of the pins spatially arranged so that each of the pins can be simultaneously aligned with one of the passageways, respectively, whereby

all of the pins can be simultaneously inserted into passageways, respectively, and

the harness is prevented from translating or rotating relative to the chip by the holding means when the contact pins are respectively inserted into the passageways.

Claim 13 (previously presented): The electrical connector chip as defined in Claim 12 wherein:

each resiliently-biasing holding means is electrically isolated from the other resiliently-biasing holding means and is electrically connected to a respective chip element, whereby

each chip element is electrically connected to a respective contact pin when the contact pins are respectively inserted into the passageways.

Claim 14 (previously presented): The electrical connector chip as defined in Claim 1 wherein:

the chip is from 0.5 to 2.0 millimeters thick; and

the sheet is from 0.05 to 0.2 millimeters thick.

Claim 15 (previously presented): A connector chip for electrically connecting a conductive contact pin thereto, comprising:

a nonconducting top layer;

a nonconducting bottom layer;

an electrical element; and

a conductive sheet situated between the top layer and the bottom layer, and being electrically connected to the element;

the top layer having a top hole therethrough, and the bottom layer having a bottom hole therethrough, with the top hole and the bottom hole being in alignment and comprising an aligned hole pair;

the sheet having an opening aligned with the aligned hole pair; and

the opening including resiliently-biasing means for holding the pin in contact with the sheet when the pin is inserted into the opening, whereby

the pin is prevented from translating with respect to the chip and an electrical connection between the pin and the element is established and maintained.

Claim 16 (previously presented): The electrical connector chip as defined in Claim 15 wherein:

the chip is from 0.5 to 2.0 millimeters thick; and

the sheet is from 0.05 to 0.2 millimeters thick.

Claim 17 (previously presented): The electrical connector chip as defined in Claim 15 comprising:

a plurality of the aligned hole pairs and openings; and

a harness including a plurality of the pins spatially arranged so that each of the contact pins can be simultaneously aligned with one of the aligned hole pairs and openings, whereby

each of the contact pins can be simultaneously inserted into one of the aligned hole pairs and openings, respectively, and

the harness is held stationary relative to the chip by the resiliently-biasing holding means when the pins are inserted.

Claim 18 (previously presented): A method for electrically connecting a chip and a conductive contact pin, comprising mechanically holding the pin in a passageway in the chip by the cantilevered deflection of a resiliently-biasing means when the pin is inserted into the passageway wherein the mechanical hold establishes and maintains an electrical connection between the pin and an electrical element embedded in the chip.

Claim 19 (original): The connecting method recited in Claim 18 wherein mechanically holding the contact pin in the passageway is carried out by generating a frictional force acting on the pin.

Claim 20 (original): The connecting method recited in Claim 19 wherein generating the frictional force is carried out by applying a normal force against the pin.

Claim 21 (previously presented): The connecting method recited in Claim 20 additionally providing the chip with a resiliently biasing flexible conductive sheet electrically connected to the electrical element and having an opening aligned with the passageway, wherein the electrical connection is maintained and the normal force is applied by inserting the pin into the opening and cantileverly deflecting the opening.

Claim 22 (original): The connecting method recited in Claim 21 comprising:

providing a plurality of passageways and openings; and

attaching a plurality of the pins to a rigid harness and spatially arranging the pins so that each of the pins can be simultaneously inserted into one of the passageways and the opening aligned therewith.

Claim 23 (previously presented): A connector of a chip of a type having a passageway extending at least partially therethrough, for electrically connecting a conductive contact pin to the chip, the connector comprising:

a conductive sheet having a peripheral portion connected to the chip adjacent the passageway, and resiliently-biasing means extending from the peripheral portion into the passageway for holding a pin in contact with the sheet and for restraining the pin from translating with respect to the chip.

Claim 24 (previously presented): The electrical connector as defined in Claim 23 wherein:

the resiliently-biasing holding means includes resiliently-biasing means for applying a frictional force against the pin, whereby a withdrawal of the pin from the passageway is resisted.

Claims 25 (previously presented): The electrical connector as defined in Claim 24 wherein:

the pin has a lateral side; and

the resiliently-biasing holding means includes resiliently-biasing means for applying a normal force against the side, whereby the frictional force is generated when a force is applied to the pin in a direction that would, in the absence of the frictional force, withdraw the pin from the passageway.

Claim 26 (previously presented): The electrical connector as defined in Claim 24 wherein:

the resiliently-biasing holding means includes an opening through the sheet; and

the opening has a breadth that increases when the pin is inserted therethrough.

Claim 27 (previously presented): The electrical connector as defined in Claim 26 wherein:

the opening, when unstressed, has an unstressed minimum breadth;

the pin is cylindrical and has a diameter;

the unstressed minimum breadth is smaller than the diameter of the pin;

the opening has a periphery; and

the sheet is comprised of a resiliently-biasing flexible material so that the periphery can cantileverly deflect into the bottom hole when the pin is inserted into the opening.

Claim 28 (previously presented): The electrical connector as defined in Claim 26 wherein the sheet is composed of a resiliently-biasing flexible material so that the breadth varies responsive to the contact pin being inserted therethrough.

Claim 29 (previously presented): The electrical connector as defined in Claim 28 wherein:

the breadth varies between an unstressed minimum breath and a stressed breath, with the stressed breath being greater than the unstressed minimum breath;

the contact pin has a diameter greater that the unstressed minimum breadth; and

the breadth increases to the stressed breadth in response to the contact pin being inserted into the opening.

Claim 30 (previously presented): The electrical connector as defined in Claim 29 wherein the opening is formed by a plurality of resiliently-biasing fingers extending centripetally from a section of the sheet that circumscribes the opening.

Claim 31 (previously presented): The electrical connector as defined in Claim 23 comprising means for preventing rotation of the pin with respect to the chip.

Claim 32 (previously presented): The electrical connector as defined in Claim 23 wherein:

the sheet is from 0.05 to 0.2 millimeters thick.